Exploring the Extreme				
2005 Science				
Curriculum Framework				
Arkansas Science				
Grade K				
Activity/Lesson	State	Standards		
Finding the Center of Gravity Using Rulers		SCI.K.NS.1.K.	Conduct scientific investigations as a class and in teams (lab activities)	
Cravity Coing Rulers	AIX	J.a	and in teams (lab activities)	
Finding the Center of Gravity Using Rulers		SCI.K.NS.1.K. 3.b	Conduct scientific investigations as a class and in teams (field studies)	
Finding the Center of Gravity Using Rulers		SCI.K.NS.1.K.	Collect empirical evidence as a class	
Gravity Using Rulers	AK	0	Collect empirical evidence as a class	
Finding the Center of Gravity Using Rulers		SCI.K.PS.6.K.1	Demonstrate spatial relationships, including but not limited to (over)	
Finding the Center of Gravity Using Rulers		SCI.K.PS.6.K.1	Demonstrate spatial relationships, including but not limited to (under)	
Finding the Center of Gravity Using Rulers		SCI.K.PS.6.K.1	Demonstrate spatial relationships, including but not limited to (left)	
Finding the Center of Gravity Using Rulers		SCI.K.PS.6.K.1	Demonstrate spatial relationships, including but not limited to (right)	
		Exploring the Ex		
		2005 Science		
	T	Curriculum Frame	ework	
Arkansas Science				
Grade 1	_			
Activity/Lesson	State	Standards		
Finding the Center of Gravity Using Rulers		SCI.1.NS.1.1.3	Conduct scientific investigations as a class and in teams (lab activities)	
Finding the Center of Gravity Using Rulers		SCI.1.NS.1.1.3	Conduct scientific investigations as a class and in teams (field studies)	
Finding the Center of Gravity Using Rulers		SCI.1.NS.1.1.5	Collect measurable empirical evidence as a class and in teams	
Finding the Center of Gravity Using Rulers			Make predictions as a class and in teams based upon empirical evidence (e.g., predict which object is heavier)	
Exploring the Extreme				
2005 Science				
Curriculum Framework				
Arkansas Science				
Grade 2				

Activity/Lesson	State	Standards	
Activity/LC33011	Otato	Otandards	
Finding the Center of		SCI.2.NS.1.2.3	Conduct scientific investigations individually
Gravity Using Rulers		.a	and in teams (lab activities)
The state of the s			and in course (one courses)
Finding the Center of		SCI.2.NS.1.2.3	Conduct scientific investigations individually
Gravity Using Rulers		.b	and in teams (field studies)
, ,			,
Finding the Center of			Collect measurable empirical evidence in
Gravity Using Rulers	AR	SCI.2.NS.1.2.5	teams and as individuals
Finding the Center of			Make predictions in teams and as individuals
Gravity Using Rulers	AR	SCI.2.NS.1.2.6	based upon empirical evidence
	E:	xploring the Ex	
		2005 Scienc	<u>- </u>
	Cı	urriculum Fram	ework
Arkansas Science			
Grade 3			
Activity/Lesson	State	Standards	
Finalia a tha Cantan at		COL 0 NO 4 0 0	
Finding the Center of			Conduct scientific investigations individually
Gravity Using Rulers	AR	.a	and in teams (lab activities)
Finding the Center of		SCI 2 NS 1 2 2	Conduct scientific investigations individually
Gravity Using Rulers		.b	and in teams (field studies)
Gravity Osing Rulers	AIX	.b	Communicate the results of scientific
Finding the Center of			investigations (e.g., age-appropriate graphs,
Gravity Using Rulers		SCI 3 NS 1 3 4	charts, and writings)
Gravity Comig Haioro	7.11.		enante, and wittinge)
Finding the Center of			Collect and analyze measurable empirical
Gravity Using Rulers		SCI.3.NS.1.3.6	evidence as a team and/or as individuals
, ,			
Finding the Center of			Make and explain predictions based on prior
Gravity Using Rulers	AR	SCI.3.NS.1.3.7	knowledge
Finding the Center of			
Gravity Using Plumb		SCI.3.NS.1.3.3	Conduct scientific investigations individually
Lines	AR	.a	and in teams (lab activities)
Finding the Center of			
Gravity Using Plumb		SCI.3.NS.1.3.3	Conduct scientific investigations individually
Lines	AR	.b	and in teams (field studies)
Finding the Center of			Communicate the results of scientific
Gravity Using Plumb			investigations (e.g., age-appropriate graphs,
Lines	AR	SCI.3.NS.1.3.4	charts, and writings)
Finding the Center of			
Gravity Using Plumb		00101010	Collect and analyze measurable empirical
Lines	AR	SCI.3.NS.1.3.6	evidence as a team and/or as individuals
Finding the Center of			Male and a state of the state o
Gravity Using Plumb	AD	0010 N0 4 0 7	Make and explain predictions based on prior
Lines	AR	SCI.3.NS.1.3.7	knowledge

Changing the Center			
of Gravity Using		SCI 3 NS 1 3 1	Communicate observations orally, in writing,
Moment Arms	AR	.e	and in graphic organizers (frequency tables)
Changing the Center	AIX	. C	and in graphic organizers (frequency tables)
		CCI 2 NC 1 2 2	Conduct scientific investigations individually
of Gravity Using	\ \ \		
Moment Arms	AR	.a	and in teams (lab activities)
Changing the Center		001010400	
of Gravity Using			Conduct scientific investigations individually
Moment Arms	AR	.b	and in teams (field studies)
Changing the Center			Communicate the results of scientific
of Gravity Using			investigations (e.g., age-appropriate graphs,
Moment Arms	AR	SCI.3.NS.1.3.4	charts, and writings)
Changing the Center			
of Gravity Using			Collect and analyze measurable empirical
Moment Arms	AR	SCI.3.NS.1.3.6	evidence as a team and/or as individuals
Changing the Center			
of Gravity Using			Make and explain predictions based on prior
Moment Arms	AR	SCI.3.NS.1.3.7	knowledge
	E	xploring the Ex	
		2005 Science	
	Cı	urriculum Fram	ework
Arkansas Science			
Grade 4			
Activity/Lesson	State	Standards	
Finding the Center of		SCL4 NS 1 4 3	Conduct scientific investigations individually
Gravity Using Rulers		.a	and in teams (lab activities)
Cravity Coming Maiors		·α	and in teams (lab activities)
Finding the Center of		SCI 4 NS 1 4 2	Conduct scientific investigations individually
Gravity Using Rulers		.b	and in teams (field studies)
Gravity Osing Ruleis	AIX	.0	and in teams (new studies)
Finding the Center of			Collect and interpret measurable empirical
Finding the Center of		SCI 4 NS 1 4 7	Collect and interpret measurable empirical
Finding the Center of Gravity Using Rulers		SCI.4.NS.1.4.7	Collect and interpret measurable empirical evidence in teams and as individuals
Gravity Using Rulers	AR	SCI.4.NS.1.4.7	evidence in teams and as individuals
Gravity Using Rulers Finding the Center of	AR		evidence in teams and as individuals Develop a hypothesis based on prior
Gravity Using Rulers Finding the Center of Gravity Using Rulers	AR AR		evidence in teams and as individuals
Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of	AR AR	SCI.4.NS.1.4.8	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations
Finding the Center of Gravity Using Rulers Finding the Center of Finding the Center of Gravity Using Plumb	AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually
Finding the Center of Gravity Using Rulers Finding the Center of Finding the Center of Gravity Using Plumb Lines	AR AR AR	SCI.4.NS.1.4.8	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities)
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb Lines	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities)
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb Lines Finding the Center of	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies)
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies)
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Finding the Center of Gravity Using Plumb	AR AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3 .b	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical evidence in teams and as individuals
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines	AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3 .b	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical
Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines Changing the Center	AR AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3 .b SCI.4.NS.1.4.7 SCI.4.NS.1.4.9	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical evidence in teams and as individuals Identify variables that affect investigations
Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Rulers Finding the Center of Gravity Using Plumb Lines	AR AR AR AR	SCI.4.NS.1.4.8 SCI.4.NS.1.4.3 .a SCI.4.NS.1.4.3 .b SCI.4.NS.1.4.7 SCI.4.NS.1.4.9	evidence in teams and as individuals Develop a hypothesis based on prior knowledge and observations Conduct scientific investigations individually and in teams (lab activities) Conduct scientific investigations individually and in teams (field studies) Collect and interpret measurable empirical evidence in teams and as individuals

Changing the Center			
of Gravity Using		SCI 4 NS 1 4 3	Conduct scientific investigations individually
Moment Arms	AR	.a	and in teams (lab activities)
Changing the Center		.a	and in teams (lab activities)
of Gravity Using		SCI 4 NS 1 4 3	Conduct scientific investigations individually
Moment Arms	AR	.b	and in teams (field studies)
Changing the Center	7 (1 (1.0	and in teams (new studies)
of Gravity Using			Collect and interpret measurable empirical
Moment Arms	AR	SCI 4 NS 1 4 7	evidence in teams and as individuals
Changing the Center		001.4.110.1.4.7	evidence in teams and as individuals
of Gravity Using			Develop a hypothesis based on prior
Moment Arms	AR	SCI 4 NS 1 4 8	knowledge and observations
Woment Aims		001.4.110.1.4.0	Knowledge and observations
	F	xploring the Ex	treme
		2005 Scienc	
	C	urriculum Fram	
Arkansas Science			
Grade 5			
Activity/Lesson	State	Standards	
,,,			
Jet Propulsion	AR	SCI.5.NS.1.5.1	Make accurate observations
			Identify and define components of
			experimental design used to produce
		SCI.5.NS.1.5.2	empirical evidence (appropriate use of
Jet Propulsion	AR	.d	control)
<u>'</u>			Identify and define components of
			experimental design used to produce
		SCI.5.NS.1.5.2	
Jet Propulsion	AR	.e	variables)
Vectoring	AR	SCI.5.NS.1.5.1	Make accurate observations
			Identify and define components of
			experimental design used to produce
		SCI.5.NS.1.5.2	empirical evidence (appropriate use of
Vectoring	AR	.d	control)
			Identify and define components of
			experimental design used to produce
		SCI.5.NS.1.5.2	empirical evidence (use of standardized
Vectoring	AR	.e	variables)
			Communicate results and conclusions from
Vectoring	AR	SCI.5.NS.1.5.5	scientific inquiry
	E	xploring the Ex	
		2005 Scienc	
	С	urriculum Fram	ework
Arkansas Science			
Grade 6			
Activity/Lesson	State	Standards	
Jet Propulsion	AR	SCI.6.NS.1.6.1	Verify accuracy of observations

			Apply components of experimental design
		SCI.6.NS.1.6.2	used to produce empirical evidence
Jet Propulsion	AR	.d	(appropriate use of control)
			Apply components of experimental design
		SCI.6.NS.1.6.2	used to produce empirical evidence (use of
Jet Propulsion	AR	.e	standardized variables)
		SCI.6.PS.6.6.7	Describe the effects of force (move a
Jet Propulsion	AR	.a	stationary object)
Vectoring	AR	SCI.6.NS.1.6.1	Verify accuracy of observations
		0010 N0 4 0 0	Apply components of experimental design
Markada	4.5		used to produce empirical evidence
Vectoring	AR	.d	(appropriate use of control)
		001010400	Apply components of experimental design
			used to produce empirical evidence (use of
Vectoring	AR	.e	standardized variables)
	4.5	201.0.110.4.0.5	Communicate results and conclusions from
Vectoring	AR	SCI.6.NS.1.6.5	scientific inquiry
		Exploring the Ex	tromo
		2005 Scienc	
		Curriculum Fram	
Arkansas Science		Curriculani i rani	ework
Grade 7			
Activity/Lesson	State	Standards	
/ to	Julio	- Ctarraar ac	
Vectoring	AR	SCI.7.NS.1.7.1	Interpret evidence based on observations
			Analyze components of experimental design
		SCI.7.NS.1.7.2	used to produce empirical evidence
Vectoring	AR	.d	(appropriate use of control)
			Analyze components of experimental design
		SCI.7.NS.1.7.2	used to produce empirical evidence (use of
Vectoring	AR	.e	standardized variables)
			Communicate results and conclusions from
Vectoring	AR	SCI.7.NS.1.7.5	scientific inquiry
		Exploring the Ex	
		2005 Scienc	
		Curriculum Fram	ework
Arkansas Science			
Grade 8			
Activity/Lesson	State	Standards	Explicate the monitor of amountaining the literature
		0010 N0 4 0 0	Evaluate the merits of empirical evidence
Mantania	AD	SCI.8.NS.1.8.2	
Vectoring	AR	.d	use of control)
			Evaluate the merits of empirical evidence
		20121212	based on experimental design (use of
	1.5		standardized independent and dependent
Vectoring	AR	.e	variables)
., .		20121212	Communicate results and conclusions from
Vectoring	AR	SCI.8.NS.1.8.7	scientific inquiry following peer review